One Man's Vision
The Evolution of Airmobile Artillery

by Major Steven M. Leonard, OD

Honorable Mention

Under the cover of darkness on 23 February 1991, G-Day minus one, the UH-60 Blackhawk helicopters from Delta Troop, 2d Squadron,17th Cavalry shuttled 100 kilometers deep into the Iraqi desert. Their mission was to insert the first of four long-range surveillance detachments (LRSDs) into a bleak expanse of sand and dust known only as forward operating base (FOB) Cobra.

Three of the six-man teams began searching for signs of activity on Cobra; the fourth reconnoitered farther north along Main Supply Route (MSR) Texas, the two-lane highway that linked the Saudi Arabian border village of Rafha with Iraqi Highway 8.[1] As the allied ground campaign prepared to begin, more than 5,000 soldiers of the 101st Airborne Division (Air Assault) completed their final pre-combat inspections, readying themselves for the most massive helicopter assault in history.[2]

At 0700 hours, the throb of helicopter rotors echoed through the desert. When the assault force touched down in Cobra, a battalion of CH-47 Chinooks began inserting the first of 12 105-mm howitzers from the 2d Battalion, 320th Field Artillery. Within three hours, the two artillery batteries were in place and FOB Cobra was secure.[3]

The speed and efficiency employed in seizing FOB Cobra was unimaginable to most and the results of a man with an uncommon vision. Invisible to the troops on that cold February morning in Operation Desert Storm, the dream of Lieutenant General James M. Gavin, the famed World War II paratrooper commander, was fully realized. His vision was initially implemented during the Vietnam War to recapture classic mobility and employ light and medium artillery fires as fully integrated elements of airmobility. The innovativeness, resourcefulness and commitment of air assault artillerymen helped implement his vision.

While serving as the Army Chief of Operations in 1954, Gavin had ordered a series of staff studies to conceptualize a hypothetical cavalry organization around the potential of the helicopter.[4] Three years later, he took his vision public with a groundbreaking article "Cavalry, and I Don't Mean Horses!" in *Armor* magazine.[5]

Gavin's airmobile concept evolved around the notion of the helicopter liberating ground forces from the restrictions of terrain, significantly accelerating the pace and lethality of combat. Gavin believed an army employing airmobility would transform the modern battlefield into a three-dimensional nightmare to overwhelm enemy commanders.[6]

In a time when great effort was dedicated to the development of the nuclear battlefield, Gavin proposed a return to the concepts of our ancestors. Nearly a century earlier, men with names such as Stuart, Custer, Sheridan and Forrest had flourished in an operational environment requiring bold, slashing shock

1st Cavalry Division troops at a landing zone during operations in Pleiku Province, 1965. To millions of troops fighting in the jungles of Vietnam, the UH-1 helicopter became known as the "Huey."

power. By the height of the McCarthy Era, we had conceded classic mobility and embraced methods of warfighting that mocked the art and principles of war. But Gavin saw the future in our past.

Two years prior to the publication of Gavin's landmark article, the Army first proposed authorizing the establishment of 12 helicopter battalions, long before practical, tested rotary wing airframes were available. Gavin was one of a handful of visionaries who saw limitless possibilities in heliborne warfare. Then in January 1960, the Army Aircraft Requirements Review Board (known as the Rodgers Board, after board president Lieutenant General Gordon B. Rodgers) convened to evaluate the technical and operational merit of 119 helicopter designs submitted by 45 different manufacturers.[7]

While the Rodgers Board had a very focused task to accomplish, the impact it had on the development and procurement of rotary wing systems was significant. During the board's tenure, the newly developed gas turbine engine was designated as the replacement for the reciprocal engines used in Army helicopters. The first airframe to boast the new turbine engine was the Bell XH-40 utility helicopter. In time, it became the UH-1, then the UH-1B and the UH-1D. Ultimately, to millions of troops fighting in the jungles of Vietnam, the helicopter would be known simply as the "Huey."[8]

When the Army Tactical Mobility Requirements Board (commonly referred to as the Howze Board) met in 1962, the Army was already giving serious consideration to the application of airmobility on the conventional battlefields of the future.[9] Lieutenant General Hamilton H. Howze, the board president, shared much of the classic idealism of Gavin. He envisioned airmobility as "the resurrection of the bold, slashing light cavalry" of old and the advent of aerial artillery as "the modern equivalent of the horse artillery."[10]

When the board concluded its work in August 1962 and recommended sweeping force structure changes to the existing divisional design, war loomed on the horizon.[11]

With the activation of the 11th Air Assault Division (Test) at Fort Benning, Georgia, on 15 February 1963, the Army created an experimental force to explore the feasibility of the concept of airmobility.[12] Organized under the command of Brigadier General Harry W. O. Kinnard, the test division boasted an impressive contingent of aviation assets for mobility and a division artillery capable of laying down a steel curtain of fire support. The division artillery structure, a deliberate departure from the pentomic division, consisted of three battalions of M102 towed 105-mm howitzers in direct support (DS); a battalion of Little John rocket launchers in general support (GS), which was later dropped from the divisional structure; and an aerial rocket artillery battalion.[13]

For the next two and a half years, Kinnard thoroughly explored the possibilities and limitations of Gavin's vision. By its nature, the division was a test-bed of innovation. Unlike conventional combat divisions, the 11th Air Assault Division had few organic ground transportation assets; both troops and fire support could be airlifted into position by helicopter. As maneuver units moved through the battlefield, the fire support umbrella would shift with them, leapfrogging between firebases. The lightweight M102 howitzer was new to the Army

11th Air Assault Division troops during an airmobile demonstration at Fort Benning, Georgia. The Sikorsky H-34 was an early workhorse for the division.

inventory as were the aircraft around which the division was designed: the UH-1 Huey and the twin-rotor CH-47 Chinook.[14]

As the months passed, no one could deny the viability of airmobile warfare. On 16 June 1965, Defense Secretary Robert S. McNamara formally announced the authorization of an airmobile division in the Army force structure and passed the mantle to the newly reorganized 1st Cavalry Division. When President Lyndon B. Johnson stood before the American people on 28 July 1965 to announce the deployment of the "Airmobile Division" to Vietnam, only a handful of people had the foresight to envision the revolution in the application of light Field Artillery that would result.[15]

Airmobility in Vietnam. Designated as an Army-level shock force by Chief of Staff General Creighton Abrams, the division deployed to Southeast Asia fully capable of being deployed theater-wide.[16] By late October 1965, the division was conducting operations in the Pleiku Province, a hotbed of enemy activity and, not coincidentally, the release point for the Ho Chi Minh Trail in South Vietnam. Initially, artillery support assumed a minimal role as the 1st Battalion, 9th Cavalry maneuvered outside the range of DS tubes and the proximity to the enemy often precluded the use of aerial artillery.[17]

But in the second week of November, when then Lieutenant Colonel Hal Moore's 1st Battalion, 7th Cavalry engaged elements of the 66th and 33d Regiments of the People's Army of Vietnam at a clearing at the base of the Chu Pong Massif in the Ia Drang Valley, the employment of artillery was a deciding factor in the outcome of the battle. In the early morning hours of 14 November, CH-47s inserted the 105-mm howitzers of Alpha and Charlie Batteries, 1st Battalion, 21st Field Artillery onto a plateau known as Landing Zone (LZ) Falcon five kilometers to the northeast. A well devised fire support plan called for thorough deceptive and preparatory fires of Moore's clearing, designated LZ X-Ray.[18]

What began for Moore's battalion as a search-and-destroy mission quickly evolved into a bloodbath, a fight for survival. Initially outnumbered by a 10-to-one margin, the battalion reeled under the force of the North Vietnamese assault.[19] DS fires from LZ Falcon combined with aerial rocket artillery from the modified Hueys of Charlie Battery, 2d Battalion, 20th Field Artillery laid down a "steel curtain" of lethal firepower around the perimeter of LZ X-Ray. During the next 53 hours, the artillerymen on Falcon fired more than 18,000 rounds in defense of X-Ray.[20]

After the battle, the exhausted men on Falcon plateau stood surrounded by shell casings piled more than 10 feet high. Guns were fired with such frequency that tubes either melted or buried themselves in the soft earth of the landing zone. Through it all, the Redlegs ceaselessly provided the firepower necessary to preserve the lives of the cavalrymen in combat on X-Ray.[21]

Following the first major engagement between American and North Vietnamese forces, Kinnard reflected positively on the role of artillery in the battle. In a 1967 *Army* magazine article he wrote, "Using Chinooks, we had been able to position tube artillery in the midst of trackless jungle where it provided close support to our infantrymen and gave them a vital measure of superiority."[22]

In fact, the application of airmobility had been in practice since 1963, first with the American advisory effort and later during operations of the 173rd Airborne Brigade.[23] But it was during the Pleiku Campaign with experienced commanders on the ground making expert and innovative use of fire support that airmobility moved beyond its infancy. In the aftermath of Ia Drang, airmobile artillery took a dramatic leap forward, becoming the primary means of countering the unconventional threat facing American forces in Vietnam.[24]

Application of Air Assault Artillery. Throughout the Pleiku Campaign, American artillerymen proved the viability of Gavin's vision under fire. Commanders were quick to recognize that continuous air movement of maneuver forces and fire support kept the enemy off balance and thoroughly unsettled. In combat operations during the campaign, 1st Cavalry Division Artillery units executed 79 tactical moves, 67 of those by air.[25]

Actions in the Ia Drang also provided some invaluable lessons. Positioning an artillery battery in a remote location exposed the security force to certain enemy attack, often from any direction on the compass. To ensure the security and continuity of firepower, artillery commanders would have to use mutually supporting firebases and be capable of rapidly delivering fire in a full circle.

The lightweight howitzer also proved especially effective at providing reconnaissance by fire. The method employed by cavalry commanders during the campaign involved firing artillery in advance of maneuver forces, clearing the march route of enemy activity while ensuring that forward observers were always cognizant of their location.[26]

Early in 1966, the 1st Cavalry Division embarked on the first major operation to cross corps boundaries and resulted in significant developments in increasing the already lethal mobility of airmobile artillery. Involving US Marine Corps forces as well as allied South Vietnamese and South Korean elements, Operation Masher/White Wing was the largest of the 19 large-scale operations conducted that year and had a devastating effect on the four enemy regiments operating in the Binh Dinh Province, including two regiments of North Vietnamese regulars.

The four-phase operation lasted 41 days and included 57 airmobile insertions of DS artillery; an estimated 2,389 enemy casualties virtually eliminated communist influence in the province. But it was the demand for aviation resources during the fast-paced operation that proved the most consequential.[27]

In the early stages of the operation, a CH-54 Crane moved a 155-mm howitzer from A Battery, 1st Battalion, 30th Field Artillery into a firing position, the first time a medium artillery piece had been airlifted during combat. Using a special sling developed and tested by the 1st Cavalry Division Support Command, the airlift demonstrated the potential mobility of heavier artillery while offering increased firepower to field commanders engaged beyond the traditional umbrella of towed fire support.[28]

At the same time, artillerymen searching for a means to reduce the "blade time" required to position a 105-mm battery produced a double-sling system that enabled a firing section to be sling loaded by one CH-47 Chinook. Historically, a battery required a sortie of 12 Chinooks to displace in combat with the howitzers and their ammunition loads transported separately. Using the double-sling system, one cargo helicopter could carry a complete firing section—the crew, howitzer and ammunition load—in a single lift.[29] Enterprising artillerymen later would develop procedures and equipment to enable a Huey to sling load the M102 howitzer into battle.

Over the course of the next two years, airmobile artillery facilitated the search-and-destroy methods employed by American commanders in Vietnam. In every operation across the theater, from Operation Cedar Falls in the Iron Triangle to Operation Junction City along the Cambodian border, the revolution in mobile firepower provided by air assaulting artillery produced unprecedented flexibility and lethality in fire support. By early 1968, the enemy had developed a deep respect for American artillery, avoiding it whenever and wherever possible.

Transition of US Policy in Vietnam. In Tet (Vietnamese New Year) 1968, the enemy stood and fought for the first time since the Ia Drang, abandoning Hanoi's strategy of waging a protracted war. On 30 January, North Vietnamese and Viet Cong forces caught allied forces unprepared, attacking six major cities, 64 district capitals and 50 hamlets.[30] While the attacks were repulsed and cities cleared within days, the Tet Offensive caused American commanders to rethink their own strategy.

The months following Tet also brought a new dimension to the war. In March, President Johnson conceded to pressure from civilian advisors and began to focus on South Vietnam's role in the conflict. Believing that the war would end only through negotiation rather than a definitive military victory, Johnson launched a peace initiative and scaled back the bombing campaigns in the north.[31] By late 1969, with a new president in office, "Vietnamization" became policy.

While general search-and-destroy counterguerilla warfare continued after Tet, field commanders began to explore methods to extend combat power deeper into remote, enemy-controlled territory to mass fires where and when least expected. The result was the artillery raid, an air assault mission involving the rapid displacement of a combined arms force, but one in which the maneuver force supported the Field Artillery.

An operation perfectly suited to the growing dependency on airmobility in Southeast Asia, the artillery raid typically consisted of a light howitzer battery, an under-strength medium howitzer battery (three guns), a rifle infantry company for security and aerial observers from the division artillery. When available, air cavalry assets participated to provide target acquisition and damage assessment capabilities.[32]

During an artillery raid, the assault forces would displace from their firebases to supplementary positions, engage the enemy targets with heavy volumes of fire and then quickly withdraw to their original positions. The operation created an overwhelming mix of blazing mobility and lethal firepower without draining the rapidly diminishing resources available to commanders toward the end of the decade. As the withdrawal of forces depleted the combat power in theater, the artillery raid became the principal offensive operation employed in Vietnam.[33]

In an effort to foster Vietnamese self-sufficiency, the artillery raid also became an invaluable tool for American commanders fighting with relatively untrained and poorly equipped South Vietnamese artillery units. The raids were conducted frequently and were well-coordinated and carefully planned with ammunition delivered with speed and accuracy and the guns rapidly displaced to their original positions. By late 1970, the application of the artillery raid had helped to significantly increase the posture and proficiency of Vietnamese artillery units with a total of 1,116 tubes providing fire support throughout the country.[34]

On 29 August 1969, the 101st Airborne Division (known at the time as the 101st Air Cavalry Division) became the Army's second airmobile division. Carrying the mantle of airmobility through the Vietnamization period, the 101st Airborne played a key role in the

A CH-54 Crane inserts artillery as the 173rd Airborne Brigade establishes a new firebase in Phu Yen Province in Vietnam.

Airmobile artillery during Operation Desert Storm in the Gulf, 1991: "flexibility plus lethality plus agility...across the full operational continuum."

continuity of the airmobile concept long after redeploying to the United States in late 1971 and early 1972 as the last American division to leave the combat zone.

In its infancy, airmobility was a logical, yet cutting edge approach to battle on the conventional frontier of war. As a mature method of warfighting today, the decades-old concept is universally accepted as a classic manner of applying, as an anonymous briefer during the Gulf War described, "flexibility plus lethality plus agility...across the full operational continuum."[35] Yet in 1954, even General Gavin could not have foreseen the revolution in the battlefield application of Field Artillery that would result from his vision.

For today's Redleg, airmobile history gives us many examples of the heroic achievements of artillerymen in the heat of battle. But the most valuable lessons learned in the evolution of airmobility have nothing to do with courage under fire or the ability to mass fires in the face of uncertainty.

Innovation, resourcefulness and a "never say die" commitment to duty characterized the artillerymen who carried the concept of airmobile artillery through adolescence. While commanders and planners alike were content to piecemeal firing sections into combat beneath Chinooks, it was the Redleg who found a way to transport the section in its entirety and then found a way to do it under the belly of a Huey. As the drawdown in Vietnam stretched the availability of fire support, Redlegs conceived the means to deliver more firepower faster with the artillery raid.

The Field Artillerymen of that era never forgot they represented the truest measure of lethality in airmobile warfare. In the battlefield application of airmobility, firepower would be the deciding factor and had to retain the same level of mobility as the supported ground forces. As the pace and lethality of combat accelerated, so, too, did the efforts of the Field Artillery to adapt to the dynamic environment of war.

That same spirit must live on in our current generation of artillerymen. Today, as in days past, our focus should remain on fighting the next engagement, the next battle, the next war. While our predecessors carried General Gavin's vision to another level during Operation Desert Storm, using innovativeness, resourcefulness and with commitment, we must do the same.

Major Steven M. Leonard, Ordnance Corps received Honorable Mention for this article in the US Field Artillery Association's 1999 History Writing Contest. He is a student at the Command and General Staff College, Fort Leavenworth, Kansas. In his previous assignment, he was an Assistant Professor of Military Science at the University of Montana. His also has served as Adjutant for the Combat Equipment Group-Europe in The Netherlands; Commander of the 16th Combat Equipment Company in Belgium; S4 and Materiel Officer for the 561st Corps Support Battalion, Fort Campbell, Kentucky; and Shop Officer and Platoon Leader, 584th Maintenance Company, also at Fort Campbell. He holds a master's degree from Murray State University in Kentucky and is a Distinguished Graduate of the Ordnance Officer Advanced Course, Aberdeen Proving Ground, Maryland. Major Leonard's article "Steel Curtain: The Guns on the Ia Drang" placed Third in the 1998 History Writing Contest.

Endnotes:

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